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MULTIPLEX SCREENING ASSAYS

ABSTRACT OF THE DISCLOSURE

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Disclosed herein are methods and compositions for multiplex screening. A functional domain of a drug target is fused to a zinc finger protein (ZFP) binding domain targeted to an endogenous reporter gene. Expression of the reporter gene provides an assay for the activity of the functional domain and, hence for agonists and antagonists of the functional domain. Moreover, a plurality of functional domain-ZFP fusions can be introduced into a single cell line, allowing simultaneous assay of all of the functional domains. Besides being obtained from a drug target, a functional domain can be obtained from, for example, a protein related to the drug target, a protein involved in drug metabolism and/or a protein involved in drug toxicity.